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ABSTRACT

While most economists agree that educational attainment contributes to national economic performance, studies have not generally confirmed a similar conclusion with respect to rural areas. This paper examines the relationships between rural education and economics. The new aim of American education, restoration of national economic competitiveness, is based on human capital theory and promotes the instrumental view that wise investments in this resource will strengthen the economy. Available evidence, however, suggests that rural schools are expected to carry out this mission with meager financial support. Increased efficiency is hardly possible in a system already operating very efficiently. The paper explores a number of analyses of rural economics and the causes and conditions of rural poverty. It proposes that the macroeconomy requires the marginality of rural enterprises. The paper demonstrates that human capital theory cannot explain the economic plight of rural areas, vocationalism has not provided the promised economic development, and the technology of school improvement is problematic for rural schools. Two contemporary proposals are considered: entrepreneurship as the new vocationalism and the nurture of minds that construct meaning. The latter views rural education as a cultural act, preserving and extending culture, against education as an economic end. This paper contains 109 references. (DHP)

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ECONOMICS AND EDUCATION:
INSTRUMENTALISM AND THE DILEMMA OF LEARNING IN RURAL AREAS

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ECONOMICS AND EDUCATION:

INSTRUMENTALISM AND THE DILEMMA OF LEARNING IN RURAL AREAS

Educators and economists, with few exceptions (e.g., Carnoy & Levin, 1985; DeYoung, 1989), do not understand each other's work very well. After all, supply and demand (for economics) and teaching and learning (for education) are very different phenomena. Most educators are concerned with the means to encourage learning, with the effectiveness of instruction. Most economists are concerned with the aim of increased productivity, with the efficiency of education. The differing assumptions and methods of economic and educational research also contribute to the lack of mutual understanding (Coleman, 1988).

Although this chapter deals with the possible connections between rural education and economics, it will not lose sight of the fundamental differences that do exist between, say, learning and investment. One fact important fact, however, is not stressed in this chapter: nearly everyone--educators, economists, and ordinary citizens--believes in the value of schooling.[1]

The Problematic Relationship of Education and Economics

This section considers the problematic relationship of rural education and economics. While most economists agree that greater educational attainment contributes to improved national economic performance, studies have not generally confirmed a similar conclusion with respect to rural areas (Deaton & McNamara, 1984).

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[1]. For a time during the 1970s the alleged need to "deschool society" was debated (Illich, 1970), but the proposal was never taken very seriously. In the 1980s, however, the need to "restructure" rural schools has continued, in a very different theoretical context, some of the themes raised by Illich.

The problematic relationship of education and economics entails a number of themes. Two are critical: the first empirical, and the second theoretical. The empirical theme entails the direction of causality: does the economy determine educational experience, or does education determine economic growth? The theoretical theme is perhaps more important: what is the proper aim of education?

The typical answers shape public debate and action. One of the goals of the discussion that follows is to show the true scope of the theoretical debate, so that readers can better evaluate proposals for the development of rural schools and rural economies.

Direction of Causality

Is education a stronger cause of economic development, or is economics (especially political economy) a stronger cause of educational development?[2] Both points have been argued well, but the contemporary public debate has not considered the second line of evidence at any length as it has proceeded with school reform in America (DeYoung, 1989; cf. Sher, 1988a).

What are the reasons for this oversight? First, the so-called school-effectiveness movement has waged a successful campaign to repudiate Coleman's work, carried out in the midst of the fervor for educational equity of the

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[2]. See Carnoy (1985) for a brief discussion of the political economy of education. "Political economy" considers the interplay of economic and social forces; "economics" generally refers to neoclassical economics, the technical discipline used to study monetary relationships. Economics is based on the assumption that human beings act to maximize economic benefits (or "utilities" in the jargon of economics). The principal utilities analyzed by economics are income (for labor) and profits (for capital). The scope of political economy is wider than the scope of economics because it views the economy as a set of social relationships. Political economy combines qualitative and quantitative methods; the neoclassical method is purely quantitative and its mathematics are comparatively more sophisticated than the mathematics of quantitative research in education.

1960s. Coleman and his colleagues (Coleman, 1966) found that schools--in the aggregate--tended not to be the vehicle for social mobility that Americans had up to that time thought they were (Jencks et al., 1972, 1979).

Second, following the Vietnam War, America experienced a period of intense economic insecurity: high inflation, high unemployment, sluggish GNP growth, instability of financial institutions, and strong economic challenge from abroad (Heilbroner & Thurow, 1985). Some of these threats persist today, despite reduced inflation and higher employment rates.

The reaction to Coleman. Coleman's study (Coleman, 1966) influenced many thinkers who agreed with his major conclusion. The study provided further evidence that the political economy has determined educational development both in contemporary and historical American society (Aronowitz & Giroux, 1985; Bowles & Gintis, 1976; Carnoy, 1982; Carnoy & Levin, 1985; Jencks et al., 1972; Jencks et al., 1979; Katz, 1968; Mosteller & Moynihan, 1972; Oakes, 1985; Spring, 1976; Wright, 1979). Among educators and citizens in general, however, the work of these thinkers probably represents a minority viewpoint.

The school-effectiveness movement, which does reflect the dominant character of schooling in America, has interpreted Coleman's work differently from the observers cited in the previous paragraph. Representatives of that movement interpreted Coleman's finding to mean that schools could not make a difference in students' lives (e.g., Bennett, 1986; Mace-Matluck, 1987). This interpretation is simplistic (DeYoung, 1989; cf. Coleman & Hoffer, 1987).

School effects and causality. The origins of the school-effectiveness movement are rooted in the classic study Pygmalion in the Classroom (Rosenthal & Jacobsen, 1968). Rosenthal and Jacobsen suggested how--at the classroom level--schools worked systematically in accord with students' backgrounds. The study inaugurated a new line of research, the school effects literature. The school

effects literature documents the effects schools do have, positive or negative. The school effects literature allows educators to target improvement efforts within schools and classrooms.[3]

Since 1968 some findings of the school effects literature have been appropriated by the school-effectiveness movement, largely with the support of state and federal education agencies, to build an optimistic--and professedly neutral--view of school improvement (e.g., Joyce, Hersh, & McKibbin, 1983). Many educators now believe that a sound technology of school improvement exists and that it can be applied to achieve whatever national or regional priorities policymakers may set (e.g., Mace-Matluck, 1987).

Educators are less secure about applying this neutral improvement technology to rural schools or districts, which differ substantially from the metropolitan schools in which most effectiveness studies were conducted (e.g., Buttram & Carlson, 1983; Coburn & Nelson, 1987; Development Associates Incorporated, 1988; Gailey & Lipka, 1987; Phelps, 1989; Stephens, Perry & Sanders, 1988). These writers agree that school effectiveness must be carefully interpreted within local contexts.

Whereas much of the educational rhetoric surrounding effectiveness regards the causes of school improvement as a settled matter, leading school effects researchers frankly admit that the issue of causality is moot (e.g., Cooper & Good, 1983; Hanushek, 1989). Others have been disappointed with alleged causes that produce no effect (e.g., Marzano, 1984).

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[3]. Much school improvement effort, however, is targeted at management and administrative leadership rather than instruction.

Rural Schools and Economic Development as a National Aim

The new aim of education (restoration of national "economic competitiveness") has emerged with little debate. Alternative aims have not been considered.

Earlier in the century, the aims of education were still vigorously debated and discussed, but, following the traumas of Depression and World War, "life adjustment"[4] was the commonly-accepted aim of education (Cremin, 1961). The student activism of the 1960s only prompted calls for more effective life adjustment: greater attention to values "clarification" and to "relevance" (e.g., Raths, Harmin, & Simon, 1966; Postman & Weingartner, 1969). In a compelling critique, Michael Katz, then a young radical himself, explained how all such aims were well beyond the practicable mission of the schools (Katz, 1971, p. 142).

The aim of forming predetermined values (e.g., compliance, punctuality) is consistent, however, with the legacy of life adjustment and the production of an orderly workforce (e.g., Committee for Economic Development, 1985). Such instruction, however, never deals with unexamined assumptions underlying such values, and might better be termed inculcation. Economists concerned with efficiency recognize the place of such inculcation:

> At the national level, education is viewed as a means of developing good citizens who are politically responsible and in whom particular values can be inculcated in the educational process. In strictly economic terms, education provides skills and abilities that contribute to national economic growth and which enable individuals to be responsive to changing macroeconomic forces. This may entail such phenomena as spatial

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[4]. The life adjustment curriculum may embody the quest for stability undertaken by those who lived through the Depression and the war that followed. The world is no longer viewed as inherently stable, and the life adjustment curriculum is no longer in vogue (cf. Hofstadter, 1963; DeYoung, 1989). It has, however, left among educators a legacy of excessive concern for the happiness contingent on conformity (Howley, 1987).

> resettlement and occupational adjustments to structural changes in the economy. (Deaton & McNamara, 1984, p. 23)

Deaton and McNamara's statement rationalizes education as a unified process of life adjustment. It states a neutral ideology of efficient schooling, and subsequent discussion presents learning and teaching as technical matters (Deaton & McNamara, 1984). It links values, skill training, and national economic development. The seamless quality of the rationale (the need to restore economic competitiveness) and its implementation (e.g., minimum competency testing, school improvement plans, increases in required courses), however, obscures the unexamined assumptions on which the economic aim of education is based.

Alternative aims--the place of education in cultivating the life of the mind, in helping students examine the ethical life, or in achieving collective and individual identity--have been overshadowed by the insistent calls to enlist the schools in economic development. The alternative aims are, however, of enduring importance, and Bell (1973, 1976) considers them to be more important than ever in the emerging post-industrial world.

School improvement and the logic of human capital theory. National economic development as the primary aim of education is based on neoclassical economic theory and research. Its logic rests on the construct of "human capital," which began to be elaborated in detail during the 1950s and 1960s (DeYoung, 1989).

Human capital is an analogy comparing human beings with the physical capital used in the production process.[5] The theory hypothesizes that

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[5]. The analogy between physical and human capital raises many troubling and interesting questions: What distinguishes human capital from labor capital? What are the components of human capital? To what extent is uncredentialed human capital competitive with credentialed human capital? How

investments in human skills and knowledge contribute to future production much as investments in equipment and labor costs do. The construct of human capital is empirically attractive because it has explained part of the variance in GNP not accounted for by physical capital and labor inputs.[6]

In studies of human capital, educational attainment is used as a general measure of skills and knowledge, and income serves as a general measure of the market value of workers' skills and knowledge as assessed by employers. The logic of human capital theory might be summarized as follows[7]:

- The free market values certain skills and knowledge more highly than other skills and knowledge.

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is human capital formed? How is profit from human capital realized? Who controls the accumulation of human capital--the individual, corporations, or the government? Why do blacks and women and working-class individuals accumulate less human capital for equal investments? Can the nonmarket effects of human capital be measured? How does human capital contribute to increased productivity? Will increasing the quality of human capital reduce income inequality? Evidence is accumulating on many of these questions.

[6]. Regression studies rarely account for all the variance in a dependent variable. Unexplained variance might be the result of omitted variables, or it may result from (multiplicative) interaction effects omitted in the design of the research. Variables not taken into account in the human capital model include class structure, the effect of different types of fixed capital investment (e.g., investment in capital goods versus investment in financial assets), and interaction effects of race, gender, and class background (cf. Wright, 1979, 1985). A recent study of the effects of operational scale on student achievement demonstrates how important interaction effects can be. Previous studies had yielded mixed results (Friedkin & Necochea, 1988). Friedkin & Necochea, however, using a term that accounted for the interaction of size and community socioeconomic status, showed that large schools in poor communities produced strong negative results, whereas in affluent communities large schools produced moderate positive results.

[7]. Goodman (1979) evaluated five human capital models, with various combinations of educational attainment the independent variables and income the dependent variable. The equation that explained the greatest amount of variance included 8 educational and 3 demographic variables (but not race, gender, or class background). It accounted for approximately 17% of the variation in individuals' earnings. One may conclude, therefore, that other factors shape human capital (discounted lifetime earnings) more strongly than education.

- Individual students are free to invest their time (principally in schools) in pursuit of the skills and knowledge that provide the chief route of access to highly-valued skills and knowledge.

- Since employers tend to act rationally to maximize profit (cf. Coleman, 1988; Heilbroner & Thurow, 1985), the market rewards skills and knowledge according to the differential benefits employers derive from such skills and knowledge.

- Acquired skills and knowledge are responsible for the association of attainment and income.

- The association of educational attainment and income explains the residual variance in GNP not explained by fixed capital and labor costs alone.

The conclusion follows that wise investments in this resource will strengthen the economy. The educational reforms proposed in the 1980s are natural extensions of human capital theory: The knowledge and skills of the workforce--learned largely in school--are held to be a significant influence on the quality of America's international economic competitiveness, and the mediocrity of the American school experience is held to be a significant factor in the erosion of the nation's global economic standing (cf. DeYoung, 1989).

Excellence as efficiency in rural schools. With a reform mission grounded in human capital theory (a national interest based on economic dominance), a presumed technical base in school-effectiveness research and development, and a rhetorical base in national reports (the educational "excellence" required by such a mission), state legislatures have framed policy intended to cultivate better-trained workers.

Available evidence, however, suggests that rural schools are expected to carry out this mission ("excellence") with only meager financial support (e.g., Brizius et al., 1988; Lyson, 1989; Stephens, 1988). Without additional funding, then, the rhetoric of excellence is actually a call for increased efficiency in rural schools (cf. Deaton & McNamara, 1984, p. 20).

Rural schools, however, are not likely to increase efficiency short of deferring needed maintenance and construction, curtailing bus service, or terminating the administratively expensive categorical aid programs on which they rely (Deaton & McNamara, 1984; Honeyman, Thompson, & Wood, 1989; Howley, 1989a, 1989b; Meyer, Scott, & Strang, 1986; Sher, 1983; Silver & DeYoung, 1986; Thompson & Stewart, 1989). Given the constraints of terrain, poverty, and small scale, rural schools already operate with great efficiently (e.g., Talbert, Fletcher, & Phelps, 1987).

Finally, research indicates that, given adequate working conditions, teachers make the difference in student achievement (Goodlad, 1984; Hanushek, 1989; Sizer, 1985). Though there is some debate, ample research also suggests that the quality of the teaching force has declined (Schlechty & Vance, 1983; Vance & Schlechty, 1982; Weaver, 1983). If projections of supply and demand are correct, the problems of teacher quality will be compounded by a teacher shortage (Weaver, 1983). For rural schools, both problems are already acute (Regional Laboratory for the Northeast and Islands, 1988).

Restoring global dominance

The new aim of education--underwriting America's economic competitiveness--contains three unexamined assumptions worth a closer look. The first assumption is that the phrase refers to a self-evident meaning. The second assumption is that the restoration is feasible, and the third is that it is worthy to be a major aim of education.

First assumption. "Competitiveness" is a term never examined in any of the reports that features it as rationale. Although arguably in a period of change, the national economy is nonetheless still quite competitive; American international economic dominance is what has been lost (Heilbroner & Thurow,

1985). The role of international corporations in the quest for international economic domination is potentially greater, however, than the role of nation states (cf. Barnet & Muller, 1974; Carnoy & Levin, 1985; Heilbroner & Thurow, 1985; Melman, 1985).

Second assumption. The comparative international position of the US economy has not improved since the crisis of the early 1980s, and the economies of other nations (e.g., Japan, Germany) continue to record substantially higher GNP growth rates than the US. South Korea, Indonesia, Chile, and other Pacific nations exercise a degree of economic power unimagined for them even 15 years ago. Third-world debt--amassed during the 1950s and 1960s to finance purchases from American businesses--continually threatens to destabilize the Western economic system (Heilbroner & Thurow, 1985; Jacobs, 1984; Kubo, 1986; Nolan & Lenski, 1985; Weede, 1987). In fact, international economic forces of such magnitude are sufficient to undo whatever economic benefits might accrue from improved schooling (cf. Carnoy & Levin, 1985; Stephens, 1988). An improved American schooling may not contribute much to restoration of America's dominance of the world economy.

Third assumption. Whereas vigorous economic development can be a celebration of life (Jacobs, 1984), it can also entail relations of domination and exploitation (Marcuse, 1955). None of the reports asked if the goal of restoring "competitiveness" were a worthy goal of education. A number of writers suspect restored "competitiveness" will perpetuate a world economic order based on domination, exploitation, and the misery that such relationships entail (e.g., Bowles, Gordon, & Weisskopf, 1984; Coleman, 1988; DeYoung, 1989; Keizer, 1988; Schumacher, 1979; Wigginton, 1985).

Many critics of human capital theory believe that American domination of the world economy has created additional hardships among people in the

developing world, rather than ameliorating preexisting hardships (Amin, 1976; Carnoy, 1982; Zachariah, 1985).[8] The hardships include increased dependency on the developed world, unbalanced economic growth, and, more recently, austerity measures to stem third-world default on development loans (e.g., Bornischer & Chase-Dunn, 1985; Delacroix, 1977; Jacobs, 1984; Kubo, 1986; London & Smith, 1988; Sica & Prechel, 1981; Weede, 1987).

The Dilemma of Life and Learning in Rural Areas

This section of this chapter examines the related notions of economic and educational marginality in rural America. It considers contemporary rhetoric about educational aims and the prevailing relations of production that exist among rural areas, cities, and the national economy. The notion of dependency in analyzing the dilemma of life and learning in rural areas is important because it has the potential to explain why many rural areas have failed to achieve relative improvements in quality of life, despite many decades of concern for such improvements.

Rural Dependency and National Priority

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[8]. Wallerstein, for example, (1984, pp. 31-32) explains the mechanism of exploitation as the ancient practice of unequal exchange: "What was remarkable about capitalism as a historical system was the way in which this unequal exchange could be hidden.... The ... key lay in the very structure of the capitalist world-economy, the seeming separation ... of the economic arena ... and the political arena (consisting ostensibly of separate sovereign states).... How did this unequal exchange work? ... Commodities moved between zones in such a way that the area with the less 'scarce' item 'sold' its items to the other area at a price that incarnated more real input (cost) than an equally-priced item moving in the opposite direction. What really happened is that there was a transfer of part of the total profit being produced from one zone to another. Such a relationship is that of coreness-peripherality. By extension, we can call the losing zone a 'periphery' and the gaining zone a 'core.'

Some observers find that the features that characterize third-world dependency also characterize the relationship of rural areas to national (or urban) economies within developed countries (e.g., Dunaway, 1989; Jacobs, 1984; Nelson & Lorence, 1988; McSwain, 1986; Page, 1985; Pottinger, 1985; Prattis, 1979). Empirical data support the presence of such features in rural America. For example, rural areas are becoming more tightly bound to the national economy (e.g., Kitchen & Zahn, 1986; Quan & Beck, 1987; Stephens, 1988); most rural areas have "specialized" economies (e.g., Bender et al., 1985; Brown & Deavers, 1987b; Deavers & Brown, 1985; Lyson, 1989; McCormick & Turque, 1989); and since 1980 the nonmetropolitan share of federal spending has diminished sharply (Dubin, 1989; Lyson, 1989; Stephens, 1988). Finally, federal spending in nonmetropolitan areas does not promote economic development (Dubin & Reid, 1988; Jacobs, 1984; Lyson, 1989).

Empire in a new land. Since its beginning, the United States has been a nation organized for empire. Empire-building entails economic and political integration on a grand scale, and rural America seems always to have served that end (Cubberley, 1922), even in its most remote locations (Dunaway, 1989; Silver & DeYoung, 1986). Initially, colonists were the instruments of another nation's empire-building schemes, but after the American revolution the new nation managed its own "manifest destiny" (Williams, 1966, 1969). The process entailed systematic exploitation of natural resources, genocide against the native population, and maintenance of a substantial slave population. These actions were also taken by contemporary European powers in Africa and Asia.

The conquest and development rested as much on speculation and finance as on productive labor. Historians (e.g., Williams, 1969) have shown how first European, and then, Eastern capital, invested in railroads, dominated the land markets of the nineteenth century, and in rapid order (Dunaway, 1989) integrated

American agricultural production into the world economy. By the close of the nineteenth century America was becoming an international industrial empire with expanding economic influence. The Republican party--which represented manufacturing, business, and financial interests--became the voice of progress, political liberalism, and international empire (Bell, 1973; Meyer et al., 1979; Williams, 1969).

The rural experience as part of empire-building. In the nineteenth century, American citizens, both foreign-born and those nurtured here, were constructing an exemplary nation as a conscious act (Crewin, 1980; Meyer, Tyack, Nagel, & Gordon, 1979). They were repudiating the values and structures of life in rural Europe, including the traditional values that still bound rural Europe together in the nineteenth century. Progress was the contemporary watchword (Hobsbawm, 1962), and Americans sought to create the most progressive of nations. Progress meant improvement in the quality of life--better transportation, mechanization of field and household labor, electrification, and--notably--access to education and learning as the route to personal advancement (cf. Cubberley, 1922).

The course of empire was legitimated by a national consensus about the American political, economic, and social experiment (Cremin, 1980; Spring, 1986; Meyer et al., 1979; Silver & DeYoung, 1986). Williams (1969) believes the drive to empire was a cultural ethos developed and propagated by American business, but subscribed to by virtually all citizens--most of whom were rural residents. The Republican party played an important role, as Meyer and colleagues' empirical work suggests (Meyer et al., 1979).

Most white settlers of the American continent in the nineteenth century were hardly attached to the places they settled, as the record of their vigorous geographic mobility suggests (Theobald, 1989; Williams, 1966). The historical

commitment of Americans has not been to traditional rural values or principles, but to progress through a back-breaking phase of empire-building. Rural life was, throughout the nineteenth century, a temporary site of progress from which most people fled to the cities, and soon, if they could (Cubberley, 1922). Since the end of the nineteenth century, however, Americans have become increasingly more concerned with the ethical alternative that the rural experience seems to entail (e.g., Borsodi, 1933; Cubberely, 1922; Mumford, 1944; Nearing & Nearing, 1970).[9]

Developing nations around the world are repeating the American experience, in terms of urbanization, if not in terms of progress and well-being. Ledent (1982), for example, estimates that India, Egypt, and Honduras (all now with less than 50% urban population) will each have populations that are 75%-90% urban by the year 2050.

Rural schooling and nation-building. In an original analysis, Meyer and colleagues (1979) demonstrate the role played by the rural school in building the American empire, during as late a period as 1870 to 1930. Their multiple regressions show that, throughout this period, both urbanization and manufacturing had a consistently negative relationship to school enrollment, whereas Republican party dominance had a consistently positive relationship to school enrollment in this period. This study corrects the misperception that the increased access to public education was caused by urbanization, industrialization, and the concomitant growth of bureaucracy in American education. According to Meyer and colleagues (1979, p. 592),

> The spread of schooling in the rural North and West can best be understood as a social movement implementing a commonly held ideology of nation-

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9. A chief concern of these critics has been the notion of industrial efficiency. Industrial efficiency is a strong theme in American education, and it will be considered in a subsequent discussion.

> building. It combined the outlook and interests of small entrepreneurs in a world market, evangelical Protestantism, and an individualistic conception of the polity.

While rural schools doubtless served as a site for local community events, it is clear that they also played an important role in integrating remote areas into a national political economy (Boli, Ramirez, & Meyer, 1985; Cremin, 1961; Elson, 1964; Grubb, 1985; Silver & DeYoung, 1986; Theobald, 1989; Zachariah, 1985).

National and Local Economic Structures

Once the continental empire was firmly established, the opportunity of the frontier quickly became the "rural problem" (Silver & DeYoung, 1986; cf. Cubberley, 1922). According to Cubberley (1922, p. 4), the rural problem was that "rural people and rural institutions have not changed rapidly enough to keep pace with the demands of the new civilization." Cubberley believed "the main single remedy which must be applied to the rural life problem is educational, and consists largely in a redirection of rural education itself" (Cubberley, 1922, p. 105).

Like Cubberley, contemporary observers conclude that rural people are too poor, illiterate, inflexible, and too lacking in leadership to confront "modern" reality (cf. Hobbs, 1987; Knutson & Fisher, 1988; Porter, 1989; Ross & Rosenfeld, 1987). They promote education as the key to "revitalizing" rural life (e.g., Bloomquist, 1988; Brown & Deavers, 1987b; Hobbs, 1987, 1989; Knutson & Fisher, 1988; Rosenfeld, 1989; cf. Cubberley, 1922). Education, reconceived as information and training, will empower rural communities to become more competitive

Although all writers understand that education is part of a larger social and economic context, many analyses lack a critical assessment of the influence of economic structures on rural education. Recent work both by neoclassical and

political economists suggests the scope of the influence of economic structures. Political economists stress the role of economic structures, in general, whereas neoclassical economists stress the role of individual characteristics (Zachariah, 1985).

Individual characteristics or economic structures? Some researchers understand that individual characteristics such as poverty and unemployment (or poor school achievement and adult illiteracy) may serve an economically functional purpose, despite their deplorable nature. According to Tomaskovic-Devey (1987, p. 59), for example, personal "characteristics--age, gender, race, and education--do not cause poverty. Rather, these are the characteristics used in the United States to allocate poverty" [original emphasis]. This view is neither new nor radical. Duncan (1968) made a similar point about discrimination against blacks.

According to this view, such characteristics as race are used in our culture to determine who must, as a result of the economy's need for poverty, actually live in poverty. These characteristics do not cause poverty, and there is nothing inherent in the attributes of white males that make them more valuable human beings than black women. A (hypothetically) different sort of social organization might, with as slender a claim to reason, allocate poverty to white males.

Both neoclassical economists and political economists have operationalized the concepts of core and periphery (e.g., Bloomquist & Summers, 1988; Reif, 1985; Tomaskovic-Devey, 1987). Some of their studies examine, not the effects of individual characteristics, but the effects of economic structures.

According to Kalleberg (1989, p. 587) dual labor market studies[10] are "particularly useful for linking phenomena at macro and micro levels of analysis."

Illustrative studies. Stevens (1983), in an analysis of dual labor market employment in the Northwest timber industry, found that the 25,000 "peripheral" workers--those most likely to be affected by market volatility--did not behave rationally by the standards of macroeconomic theory. Staying with a job--which would help them accumulate human capital (Mincer, 1989)--was not economically productive for these workers. In fact, changing jobs frequently helped these workers maximize income. At the level of the workers' lived experience, economic structures elicited behavior that, though rational in the local context (where the dual labor market operates), appeared at the same time to be irrational from the perspective of human capital (a macroeconomic perspective that minimizes local conditions).

More broadly-based empirical research, predicated on the premise that economic structures affect issues relevant to quality of life issues (poverty, unemployment, equality of income distribution, educational attainment), indicates that the presence in a county of industries that represent the "core" (monopoly manufacturing industries for the most part: national firms with a local branch plant or division) and large family farms (as opposed to corporate and commercial farms) produce cumulative positive economic effects over time

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[10]. Studies of the dual labor market examine market segmentation at a microeconomic (regional or sector) level. Dual labor market theory entails comparison of the primary versus secondary labor market, in which the primary market pays higher wages, offers greater job security, and is dominated by larger ("core" or "monopolistic") enterprises. The secondary market offers lower wages, less security, and is dominated by smaller ("peripheral" or "competitive") enterprises. Whereas dependency theory implies a certain critical perspective on the international political economy, dual labor market theory has been applied to advantage by both neoclassical economists (e.g., Bloomquist & Summers, 1988) and political economists (e.g., Williams, 1988).

(Reif, 1987; cf. Bloomquist & Summers, 1988). The problem with core industries, as Lyson (1989) notes, is that they often do not stay long enough to produce cumulative benefits.

By contrast, the prevalence in rural counties of extractive industries (mining, agriculture generally, forestry, and fishing), state employment (education, social service, government), peripheral manufacturing[11] and both large corporate and very small, part-time farming seem to have a negative effect on socioeconomic conditions over time (see, for example, Reif, 1987; Bloomquist & Summers, 1982; 1988; Tomaskovic-Devey, 1985, 1987).

Other research indicates that extractive industries and routine manufacturing (i.e., "peripheral" rather than "core" manufacturing) predominate in rural areas (Bender et al., 1985; Brown & Deavers, 1987a; Deavers & Brown, 1985; DeYoung, 1985; Rosenfeld et al., 1985, 1989). If the analyses of researchers like Lyson (1989), Reif (1987), and Tomaskovic-Devey (1985) are correct, then the comparatively poor quality of rural life is an effect of the economic structures that operate in rural areas. Lyson (1989) calls for reform of the haphazard de facto economic development policies that destroy rural communities.

Macroeconomics as fiction. One of the most original economic critiques of recent decades has been made by Jane Jacobs (Hill, 1988). Jacobs' critique incorporates features of dependency theory and dual labor market theory (e.g., the city as locations of core activities and structures, and rural areas as

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[11]. Peripheral firms are also known as "second-sector" enterprises (Wright, 1979) or "competitive-sector" enterprises (Bloomquist & Summers, 1982). Such concepts derive from the dual-labor market theory. This use of the terms "core" and "periphery" in studies of the dual-labor market illustrates the fact that dependency theorists refer more to economic structures than to the associated geographic locations of those structures (e.g., rural vs. urban; third- vs. first-world).

locations of peripheral activities and structures), of capitalist ideology (e.g., the value of innovation in development, the importance of wise investment), and of politicized environmentalism (e.g., the importance of small-scale, mixed-use city planning and neighborhood preservation). As a result, Jacobs cannot be neatly classified as a radical, liberal, or conservative (Hill, 1988).

Jacobs (1984) is most sharply critical of what she considers to be the economic fiction of the nation state. Macroeconomics--upon which national policy decisions largely rest--treats the nation as the unit of analysis, but according to Jacobs, national and international data obscure the much greater variety of economic relations that exist within each nation. The larger the nation, the more it functions as an empire, and the greater the variety of contradictory economic conditions within it (Jacobs, 1984).

According to Jacobs, macroeconomic analysis--especially in large nations or empires--actually obscures the structures and processes that create economic vigor. She believes that urban economies, not national economies, are the sources of economic growth. Macroeconomics is thus built on false premises. Instead of analyzing national economic data, economists should investigate economic relations among cities and among cities and the rural areas that they dominate (Jacobs, 1984).

Jacobs cautions that empire (she uses both the United States and the Soviet Union as examples) impedes economic development in the long-run. Periods of growth and geographic expansion incorporate vast areas that have different economic needs and different roles to play in the economic development of the empire. Later, such differences invite comparisons and pleas for equal treatment to the central government, which typically responds in two ways. First, it seeks to maintain its empire by force (often how it was constructed in

the first place). Second, it seeks to stem social unrest by transfer payments of various sorts intended to ameliorate the worst inequalities (cf. Dubin & Reid, 1988; Lyson 1989).

Jacobs (1984) calls both responses "transactions of decline." Transactions of decline are nonproductive economic expenses, since neither programs of transfer payments nor militarism promote economic development (cf. Dubin & Reid, 1988; Melman, 1985). Transactions of decline bring about economic stagnation as the empire becomes consumed in an attempt to ensure its continued existence. According to Jacobs, it is ultimately a hopeless struggle.

Rural, national, and urban analyses. Rural areas in general seem to stand in relation to the urban or the national economy as "peripheral" areas. Macroeconomic analysis, because it concentrates on the generality of the national economy, tends to overlook the status of rural areas. Perhaps, as Jacobs (1984) suggests, the reason for this seeming oversight lies in the nature of the macroeconomic fiction. If Jacobs is correct, then rural areas depend for a marginal prosperity on their trade with urban areas, where economic development occurs.

Wallerstein (1984), however, suggests that the balance of trade between rural and urban areas will be so constructed as to impoverish rural areas. Ultimately, as Tomaskovic-Devey (1987) suggests, the personal characteristics of rural residents (illiteracy, race, low educational attainment) may in this case be used to "explain" the impoverished condition of rural areas. Indeed, this "explanation" is accepted at least in part by many economists and educators (Bender et al., 1985; Bloomquist, 1988; Bloomquist & Summers, 1988; Brown & Deavers, 1987a; Deaton & McNamara, 1984; Hobbs, 1987; Lyson, 1989; Rosenfeld et al., 1985, 1989). Rural educators and others who believe that developing the human capital of rural areas will lay the groundwork for local economic

development may, if the critics are right, be disappointed. At best, "effective" education will allow those who receive it the opportunity to migrate to core employment opportunities.

Economic Marginality of Rural America

Economic structures appear to influence the quality of life in rural areas. Economic marginality is, with respect to the economy as a whole, the structural analog of poverty with respect to the experience of individuals. Economic marginality entails the questionable profitability of an occupation or enterprise, and is usually associated with routine production that is no longer the site of major new economic development (e.g., Barkley, Keith, & Smith, 1989; Jacobs, 1984; Lyson, 1989). Individual poverty, however, is one indication of economic marginality, since marginal enterprises often yield low wages for those employed in them (Lyson, 1989; cf. Weber, Castle, & Shriver, 1987). In rural America, the poor are often employed, though they often do not have as much employment as they would like (O'Hare, 1988).

Poverty. In rural America, the experience of poverty is clearly a persistent problem (Porter, 1989), and possibly a growing one (Lyson, 1989; O'Hare, 1988). A brief review of current poverty data suggests the extent of the problem.[12] In 1987 poverty rates in nonmetropolitan America (that is, areas outside cities and their surrounding suburbs) were not only higher than metropolitan poverty rates, but they equaled the poverty rates in central cities. For whites (including Hispanics), the nonmetro and central city poverty rates are identical. For blacks, the nonmetro poverty rate substantially exceeds the central city rate. The intensity of rural poverty varies by region:

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[12]. The data reported here can be found in Poverty in Rural America: A National Overview (Porter, 1989).

In the South and the West (regions that together contain more than 2/3 of the nation's poor people), nonmetro poverty rates exceed central city poverty rates. (According to Lyson [1989] the disparities between the rural and urban South are growing worse.) In the Northeast, the nonmetro poverty rate is substantially lower than the central city poverty rate, and in the Midwest it is somewhat lower.

According to Reif (1987), the extractive industries over time contribute to a worsening of economic conditions. The work of others strongly suggests that the peripheral labor market attached to those industries is the origin of the most intense poverty associated with extractive enterprises (Stevens, 1983; Tomaskovic-Devey, 1982, 1987). Some observers believe that the relationship between poverty and employment in extractive industries is weakening (Bloomquist, 1988). Duncan and Duncan (1983), however, show that high incomes in coal-mining do not usually translate to improved socioeconomic conditions (i.e., investment in the local community, increased public revenues, improved human services, or equalized income distribution).

More generally, the available evidence suggests that socioeconomic conditions in rural counties where peripheral manufacturing dominates is usually associated with relatively poor socioeconomic conditions (Bloomquist, 1988; Bloomquist & Summers, 1988; Lyson, 1989; Pottinger, 1985; Reif, 1987; Rosenfeld et al., 1985, 1989; Summers et al., 1988; Tomaskovic-Devey, 1987). In addition, there is some evidence that in rural counties where government employment predominates (including employment in education), socioeconomic conditions are also relatively poor (Pottinger, 1987; Reif, 1987). Bloomquist and Summers (1988) believe, however, that government employment--via increases in the number of clerical jobs--tends to equalize income distribution in counties with economic growth, at least in the period 1960-1970.

Marginality, nonhuman capital, and the obsolescence of labor. As Bell (1973) notes, a key feature of post-industrial society is the continuing obsolescence of labor, particularly "labor" construed as the sale of the time of proletarian workers of undifferentiated--and increasingly devalued--skills. The obsolescence of labor is the progressive replacement of labor by nonhuman capital (plant, machinery, and other fixed assets). In the process of obsolescence, each remaining worker in the enterprise becomes responsible for a greater amount of capital and for a greater amount of output. As an enterprise matures, then, capitalization increases, worker productivity increases, costs (and prices) per unit of output drop, and eventually profitability falls to a marginal level, all things being equal (Wright, 1979). This is the process by which marginal economic enterprises come into being--those in which workers are few and profits are comparatively low (cf. Lyson, 1989).[13]

When such a technological change affects the occupational structure of rural areas, Jacobs (1984) refers to it as a clearance. Workers are "cleared" from the process of production, to their detriment unless they can find another occupation. Rural workers are also cleared in the sense that if other occupations are not available they abandon the rural area for the city.[14]

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[13]. Compare Bell (1976, pp. xiv and xiv[n]) on the distinction between a labor theory of value and a knowledge (or human capital) theory of value. The two views may reflect workers' positions as rural residents, on the one hand, and as national citizens on the other. In an age when human knowledge becomes embodied in fixed capital (i.e., machines controlled by computers), labor obsolescence may well include the replacement of labor (or human capital) by the knowledge codified in machines (cf. Weiner, 1950). The wages of the remaining workers need not decline, since overall labor costs will have been minimized, and wages tend to be relatively good in highly capitalized industries (Heilbroner & Thurow, 1985; McGranahan, 1987; Williams, 1988).

[14]. Jacobs notes that clearances, which result from technological innovation (in agriculture or mining, for example), and abandonment need not occur simultaneously. Abandonment can occur without a technological incentive, as among peasants who abandon subsistence farming because they mistakenly believe a better life is available in urban areas, or as among

It may seem that marginal enterprises serve no productive purpose, but this impression ignores the significance of economic structure and function. As an enterprise becomes progressively more marginal, it can be integrated into more profitable enterprises, either by the corporation that owns it (perhaps as part of planned diversification), or by another corporation interested in diversifying its operations (to which the owning corporation can sell the enterprise). It can also be relocated to areas (e.g., in the third world) where labor costs are much less than they are in rural America.

In practice, corporations exercise various alternatives to avoid the negative effects of operating a marginal enterprise. For example, they may seek favorable government policies; they may practice innovative financial manipulations; they may engage in aggressive labor practices; they may seek a monopoly in the markets in which they operate; or they may invest in continued technological improvements (Heilbroner & Thurow, 1985).

In this way marginal enterprises, though in themselves not necessarily very profitable, are nonetheless <u>productive</u>. They are incorporated into a larger unit, to which they contribute stability. Stability might take the form of guaranteed supply or demand; possible advantages in the firm's end market; or access to transfer payments associated with the marginal enterprise (e.g., depletion allowances and other deductions, subsidies, and investment tax-credits).

As an economic base of routine production, marginal enterprises contribute to overall economic production and development. Corporate accounting departments, for example, generate no profit, but firms do not therefore eliminate them. Marginal enterprises--if they cannot be eliminated--become, like accounting departments, part of the cost of doing business. Not only need

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extractive workers who move to the city during market "busts."

they not be profitable, they may necessarily be operated at a loss, and, depending on the corporation's overall structure, it may even be to a corporation's advantage to operate the enterprise at a loss.[15]

Specialization and rural enterprises. In general, industries best suited to rural America are those "with routine technology and established markets" (Lyson, 1989; McGranahan, 1987, p. 3; cf. Barkley et al., 1989). These are precisely the sorts of industries described here as marginal enterprises.[16]

Recent empirical descriptions demonstrate how much life in rural America has changed even since 1950 or 1960 (Bender et al., 1985; Brown & Deavers, 1987a; McGranahan, Hession, Hines, & Jordon, 1986; Rosenfeld et al., 1985, 1989; Stephens, 1988). Agricultural production can no longer be taken to be the characteristic rural enterprise, as it was in the past (e.g., Cubberley, 1922). Other industries are now equally important to the economic life of rural areas.

Behind this emerging diversity, however, lies increased specialization, as the work of Bender et al. (1985) particularly suggests. These researchers (employed by the Department of Agriculture) developed an 8-part typology of nonmetropolitan counties: farming-dependent, mining-dependent, manufacturing-dependent, retirement-dependent, government services, federal lands, persistent poverty, and unclassified.[17]

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[15]. In fact, public policy usually provides help--often substantial--to marginal enterprises (e.g., Duncan & Duncan, 1983; Stevens, 1983). This impression is confirmed empirically by Turner & Starnes (1976), who report that transfer payments to corporations and to the wealthy in general far exceed those to individuals and the poor.

[16]. The term "established market" is better understood as referring to the fundamental necessity of the product of the industry--for example, coal, timber, or food and fiber--than to an orderly market. Energy, timber, and agricultural markets are, when unregulated, notoriously "volatile." Indeed, Duncan & Duncan (1983) believe that coal operators favor perpetuating volatile markets as a means of rationalizing public expenditures that support private profit-taking and reduce opportunities for local development.

[17]. The categories of the typology (with the exception of the unclassified counties), however, are not mutually exclusive. Nonetheless, 67% of classified counties belong to one type only; 26% belong to two types; and

Perhaps half of all rural counties have an economic base in natural resource "extraction."[18] Making a liberal estimate of duplicated counties, perhaps 1460 counties (or fully 70% of classified nonmetropolitan counties) depend either on extractive industries or manufacturing.[19]

If mining-, farming-, and timber-dependent counties[20] are considered to be the extractive sector of rural economies, then rural specialization can be seen as a trend even within a single sector. Since 1969 the number of counties in these categories has increased by 156%. Of this increase, 20% is attributable to mining, 2% to timber, and 77% to farming (cf. Weber et al., 1987). This specialization has developed even as services have become the fastest-growing sector of the economy generally.

Clearances as labor obsolescence in rural enterprises. The extractive industries, in general, have become, and continue to become, less labor-intensive and more capital-intensive (Brown & Deavers, 1987b). For example,

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only 7% belong to three or more types. Unclassified counties account for 15% of the universe of 2,443 nonmetropolitan counties.

[18]. Contrast the terms "extraction" as used by economists with "husbandry" as used by farmers. Extraction accords a utilitarian priority to local resources as sources of exports, whereas husbandry accords an ethical priority to the maintenance of local resources as sources of future well-being.

[19]. Data in Bender et al. (1987) cannot be disaggregated to account for duplicates among types; moreover "timber-dependency" is not a category in the typology. I estimated the number of unduplicated counties by summing the number of mining-, farming-, timber-, and manufacturing-dependent counties, accepting 67% as unduplicated, and estimating (conservatively) that half of the remaining counties (i.e., 289) would be duplicates within the total group.

[20]. The latter are not separately typed by Bender and colleagues, but they are by Weber, Castle, and Shriver (1987). The discussion here combines data from both reports, so that figures reported may include duplicated counts. The term "mining," as used here, includes energy and non-energy mining as well as drilling for oil and gas.

even since 1960 the amount of labor required to harvest 100 bushels of corn has diminished by 85% (from 20 to 3 hours) and simultaneously the average corn yield has increased 115% (from 55 to 118 bushels per acre). In the same (quite recent) period, the number of farms has declined by 75% (from 20 to 5 million). The farm population has continued to decline at a rate of 2.5% for year during the 1980s, and appears to have decreased by 5% in 1986-1987 (U.S. Bureau of the Census, 1988).

Data reported by Kendrick and Grossman (1980) also suggest that productivity growth in the extraction industries exceeds productivity growth in the private domestic economy as a whole. Furthermore, while labor input to the economy as whole increased at an annual rate of +0.5% during the postwar period, labor inputs in farming, mining, and lumber industries decreased steadily (-3.9%, -0.3%, and -1.2%, respectively) during the same period.[21] Throughout the extractive industries reports like that of a planned $30 million wood-processing plant employing only 120 workers (Stevens, 1983), will become increasingly more common as robotics are applied to routine production.

Manufacturing is another industry now common in rural America, and Bender and colleagues (1985) classified 678 counties as manufacturing-dependent. Rural manufacturing differs from extractive industries in its closer location to urban areas (Bloomquist, 1987). Jacobs (1984) calls such areas "transplant" regions. Rural manufacturing counties tend to be nearer urban centers than are counties specialized in extraction, and, if adjacent to growing metropolitan areas, will become urbanized (Jacobs, 1984). This analysis indicates that even the rural

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[21]. The period is 1948-1976, which ends during the energy crisis of the 1970s as "stagflation" became a puzzling phenomenon. See Kendrick & Grossman (1980), Tables 3-2, 3-4, and 3-5. The figures for mining are probably underestimates of the long term rate of decline (Duncan, 1986; Weber et al., 1987).

growth of the 1960s and 1970s--which was associated largely with growth in manufacturing (McGranahan, 1987)--may have reflected urbanization more than rural development.

The marginal nature of rural manufacturing is documented in recent reports (e.g., Bender et al., 1985; Barkley et al., 1988; Lyson, 1989; McGranahan, 1987). Both Lyson (1989) and McGranahan (1987) note that firms--whether small or large corporations--tend to locate their routine manufacturing jobs in rural areas. Labor obsolescence also seems to be the norm in such enterprises. Even after the national "recovery" from the severe recession of the early 1980s, these rural enterprises offered 12% fewer jobs in 1986 than in 1979 (McGranahan, 1987, p. 7).[22]

Summary: Rural economic marginality. The empirical studies cited above suggest the extent to which rural areas are part of the national economy, and they suggest the functions such a role entails. The rural life problem is no longer the farm problem (cf. Cubberley, 1922). Fewer than 8% of rural people live on farms; and half of those farms have gross sales less than $1000 per year (U.S. Bureau of the Census, 1988).[23] Rural areas seem to render specialized service to the national economy by serving as a site for specialized production

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[22]. Kendrick & Grossman (1980) do not provide a dual labor market analysis that would confirm labor obsolescence in rural manufacturing. Nonetheless their evidence suggests that labor input in the manufacturing of many basic goods has declined--as opposed to the general labor input increase in manufacturing as a whole. On the basis of the analyses of Bender and colleagues (1985) and McGranahan (1987), one might hypothesize that such industries tend to be located in nonmetropolitan areas.

[23]. Beaulieu and Mulkey (1986) report that farm families that operate farms producing between $2,500 and $20,000 in gross sales derive over 100% of their net income from off-farm work (i.e., on paper these farms tend to show small losses). In conventional terms, these farms are not profitable, though they are obviously productive. Perhaps they provide quality of life benefits (subsistence benefits, scope for independent productive labor, closeness to the natural world) that cannot be reckoned as profit.

by marginal enterprises that provision the nation with energy, minerals, food and fiber, and simple manufactured goods. Productivity in such industries is rising, and labor inputs are falling. Rural residents have a long history of underemployment and low participation in the labor market (McGranahan, 1987). To an unmeasured degree, this history contributes to their acceptance of low wages and periods of unemployment and underemployment as a condition of life (Cobb, 1982).

Analysts agree that a number of problems must be confronted in the future. The strategy most frequently endorsed by educators and rural development experts (e.g., Bender et al., 1985; Brown & Deavers, 1987a; Hobbs, 1987, 1989; Lyson, 1989; Nachtigal, 1988; Sher, 1987) is to improve human capital (or human resources) in rural areas. Most observers appear to believe that more education and training will improve rural socioeconomic conditions, an issue of causality examined in the first section of this chapter. Observers like Zachariah (1985, p. 21), however, warn that available evidence indicates that:

> it is not possible, ever again, to portray formal education as Atlas shouldering the burden of transforming individuals in order to accelerate development. It is now doubtful whether formal education is two-faced Janus, with the ability to learn from the mistakes of corporate capitalism as well as state socialism and wisely create a new society of the future.

The limits of neoclassical analysis. The recommendation to improve human capital can, however, be understood in light of popular critiques of neoclassical economics.[24] Bowles et al. (1984, p. 5) note the essential assumption: Whereas the economy is a creation of people, and its basic relationships are social relationships, neoclassical economics "has adopted the view that the economy runs like a machine, a clockwork mechanism in perpetual

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[24]. Most of the analyses of the economic plight of rural areas are conducted by neoclassical economists (see note 2 in the first section of this chapter).

synchrony." In neoclassical economics, social relations are not an object of inquiry. As a result, human beings--creatures of culture and ideology that they are--have a questionable place in neoclassical economics.

Human capital theory, however, integrates human beings into the neoclassical analysis as the location of economically productive skills and knowledge. Its interpretation of the knowledge, skills, and experience of human beings as <u>capital</u> is significant because the free movement of private capital is perhaps the key feature of capitalism (cf. Smith, 1960/1776).[25]

In the neoclassical analysis, rural areas are <u>geographic sites</u> that provide for the development of certain utilities that should ultimately benefit the national economy. Likewise, people are merely sites of the skills, knowledge, and experience that apparently contribute to economic growth.[26] The values and culture of a people who chance to occupy a particular territory are immaterial to development, in this view. If economic development does not occur (or, as in the case of the national economy, is perceived to lag) neoclassical economics may recommend the improvement of human capital as one possibility.

Because neoclassical economics does not inquire about the role of social relations, and because with human capital it separates skills and knowledge as a factor of production separate from individual human beings, it can view particular human beings as <u>impediments</u> to economic development. The quickest

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[25]. The free movement of labor is also a feature of capitalism. Capital moves as a powerful mass, however, whereas labor moves as comparatively powerless individuals.

[26]. This is a process of reification (turning humans into things). That is, people become things (sites) in which development, directed from outside the people themselves, takes place. Skills, too, are viewed as things that are transplanted to people-as-things, rather than being presented as the legacy of culture that they really are. Instead of being actors (subjects of culture), people are, in this view, passive recipients (objects of development) and skills, too, tend to be viewed as static objects of strictly utilitarian value.

remedy to economic stagnation or decline, therefore, is not education but replacement of the existing capital stock. Displaced rural citizens can be "retooled" to serve the aims of the national economy. By treating human beings as a capital stock, neoclassical economics can "free" workers of the places to which they are irrationally attached.[27]

The neoclassical clockwork comes apart, however, when economics seeks to investigate regional, ethnic, and gender issues (Bowles et al., 1984; Kalleberg, 1989; Williams, 1988). Pottinger (1987) showed how a Reagan-era Presidential Commission, asked to identify barriers to economic development, overlooked the relevant skills and knowledge immediately available in a depressed American Indian economy, and reported that deficient human capital was the chief barrier to development. Pottinger demonstrated that there were already too few jobs to make use of the available skills of local people.

A study by Snipp & Sandefur (1988) confirms this analysis--Indians who migrate and remain long enough in urban areas benefit principally from the availability of more and better quality work. Duncan (1986) makes a similar point about the limited employment prospects in central Appalachia and the attraction of cities: lack of jobs, not a deficient workforce keep people in poverty. Both Lyson (1989) and Sher (1988a) believe that the creation of good jobs must be given a priority that defacto rural development policies have never acknowledged. Both these observers note that economic justice is the foundation of economic development.

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[27]. Compare Stevens'(1983) discussion of timber workers who in maximizing wages (by changing jobs frequently) also diminish their human capital. From the viewpoint of neoclassical economics--based on the assumption of maximizing income and profit--the workers seem to act as if they are irrationally attached to the place in which they live. In fact, however, they strike a good local compromise, but one that will harm them if they must relocate to an urban area (with their emancipated human capital) in the future.

Without a view of economic structures and social relations, neoclassical analysis, if honest, can report only great "diversity" (Zachariah, 1985; cf. Bender et al., 1985). The findings of such research, however, tend to support the inference that the socially created structures that govern the macroeconomic clockwork require the economic marginality of rural areas (cf. Bender et al., 1985; Brown & Deavers, 1987a; Weber et al., 1987).

The Relationship Between Rural Education and Economic Marginality

Mounting evidence shows that marginal rural enterprises--and the local economies they structure--are tied more and more closely to national and international economic life (Brown & Deavers, 1987b; Stephens, 1988). This trend, which is a long-term historical development (Dunaway, 1989), has important implications for schools in rural areas (Meyer et al., 1979; Silver & DeYoung, 1986; Stephens, 1988).

Although neoclassical economics may link marginal rural enterprise to deficient human capital, other evidence indicates that rural economic marginality derives, not from the deficient skills and knowledge of rural people, but from the culture and ideology that rationalize national economic structures (Bell, 1973; Grubb, 1985; Silver & DeYoung, 1986; Zachariah, 1985).

Ideological principles of national schooling. When schools were first imagined for this country, the type of education proposed was an education in the practical arts of mechanics and farming (Cremin, 1980). Americans are persistently and unfailingly practical in their approach to education (Bell, 1973; Counts, 1930; Cremin, 1980; Cuban, 1983; Hofstadter, 1963). The complex of ideas associated with this trait--for example, acquisitiveness, instrumentality, efficiency, novelty, and individuality--characterize the ideology of capitalism, according to Bell (1976). These values pervade American

education and structure perpetual school "reform" in this country (Cremin, 1961; Cuban, 1983; Silver & DeYoung, 1986).

The construction of standardized schooling. Nationally instrumental schools required a systematic administration, and business management served as the model (Callahan, 1962). Shortly after the turn of the twentieth century, school administrators adopted the principles of scientific management directly from business (Callahan, 1962; Cremin, 1961; DeYoung, 1989; Katz, 1971; Spring, 1986).

The result has been the standardization of schooling, so that schools generally resemble each other more than they differ (cf. Goodlad, 1986; Schmuck & Schmuck, 1989). Existing differences are continuously scrutinized so that the positive differences can be identified, understood, and replicated elsewhere. The successful replication of effective practices, of course, may well cause schools to resemble one another still more closely (see e.g., Navarro, Berkey, & Minnick, 1986).

Standardized schools exhibit the ideological themes mentioned above--acquisitiveness, instrumentality, efficiency, novelty, and individuality. These themes are now embedded features of all American schools (cf. Cremin, 1961, 1980; DeYoung, 1989; Katz, 1971; Spring, 1976; Tyack, 1974).

Acquisitiveness in education, as in economics, is a driving force in America.[28] It refers especially to the accumulation of capital (Bell, 1976), and school administrators have been dramatically successful in acquiring control of fixed and labor capital, as the history of school district consolidation

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[28]. I use the term descriptively, to indicate aggressively-sought increases in magnitude or scale, not pejoratively to indicate greed.

suggests.[29] Consolidation brought more capital under the control of centralized administration--land, buildings, equipment, and labor. In the process teachers have lost autonomy (Katz, 1971; McNeil, 1985; Samuels, 1970; Smith & DeYoung, 1988; Wigginton, 1985) and communities have lost the control of these resources (Dunne, 1983; Sher, 1977, 1986).[30]

Instrumentality, as noted above, pertains to the aims of American education. When social science (as in studies of human capital) validates an instrumental purpose, it establishes a rationale for increased vocationalism and careerism as aims of education. Although the American common education, as Cremin notes, was imagined as practical even at the time of the Revolution, the orientation of higher education in America has, until recently, been less instrumental (Barzun, 1968; Stephens & Roderick, 1975). Increasingly, however, careerism has displaced study of the liberal arts even at the most elite institutions (see e.g., Katchadourian & Boli, 1985). In rural schools, located in economies dominated by marginal enterprises, and in presumed need of economic development, educational improvements are tied to instrumental aims even more firmly than they are elsewhere (Carnoy, 1982; Grubb, 1985).

Efficiency encompasses the consensus about operations. Efficiency refers, at base, to completion of a required function for the least possible cost. In industrial operations, quality control is able to determine when increased

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[29]. Consolidation has reduced the number of school districts by 90% since 1900. The drive toward centralization has prompted some critics (for example, Everhard, 1982) to characterize American public schooling as a "monopoly."

[30]. There are, of course, benefits to rational organization and bureaucracy as compared to more primitive forms of organization (Weber, 1947), and few would argue that a return to older forms--such as patronage--would improve schools. Most contemporary educators, however, argue that schools should involve communities in school governance and that more teachers should organize their classrooms to fit their images of what good instruction should be.

efficiency interferes with quality. No such standards exist in education. The influential Rand Corporation summed up contemporary educational attitudes about efficiency in 1974:

> Increasing expenditures on traditional educational practices is not likely to improve educational outcomes substantially. There seem to be opportunities for significant reduction or redirection of educational expenditures without deterioration in educational outcomes. (Averch et al., 1974, pp. 171-175)

In rural areas, where sparsity and transportation costs increase expenditures, schools are often accused of being inefficient (DeYoung, 1987). Talbert and colleagues (1987) report evidence, however, that demonstrates that rural schools in a persistently poor region are typically very efficient. Howley (1989a) suggests that rural schools, as a group, may be <u>too</u> efficient.

Novelty relates to the American tradition of innovation in education and business. In business, novelty is associated with the development and marketing of new products. In education, novelty is reflected in the enduring preoccupation of educators with the reform of schooling (Cuban, 1982; Katz, 1968, 1971; Spring, 1986).[31] Educational innovations translate directly into new products, which are usually produced by private enterprise. When public funds support the development of new educational products, private enterprise benefits twice. The most successful innovations in American education have arisen during the most conservative political eras: the beginnings of consolidation and the common school (1840-1860); scientific management (1890-1920); new math and science curricula (late 1950s); and school effectiveness (1980s) (Callahan, 1962; Cremin, 1961; Cuban, 1983; Katz, 1968; Spring, 1986).

Rhetorical respect of individuality permeates American education, and educators universally claim an interest in educating the "whole child."

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[31]. Many observers refer to educational fads. See Mitchell (1979) for a literate and amusing view of educational fads.

Schools, at least in rhetoric, seek to "individualize" their instruction so as to meet the "educational needs" of particular students. During the twentieth century, much innovation and differentiation (a handmaiden of efficiency) have taken place in an attempt to accomplish this end: age-grade placement, vocational education, homogeneous grouping by ability levels, the comprehensive (and consolidated) high school, compensatory education, career education, and special education. Some of these programs are additions outside the regular program, a tacit admission of the difficulty of changing routine practice, according to some observers (e.g., Cuban, 1982; Spring, 1986).

The continuity of proposals for reform. In the early decades of the century, reformers in education and government believed that the quality of rural life in general was deteriorating (e.g., Cubberley, 1922). They saw education as the tool to revitalize and integrate rural areas into the emerging national political economy.[32] The rhetoric of the early part of the century is, however, not much different from the rhetoric of the last decades of the century:

> We should act at once because of the stress of foreign competition. We are twenty-five years behind most of the nations that we recognize as competitors. We must come nearer to the level of international competition. As every establishment must have a first-class mechanical equipment and management, so must it have in its workmen skill equal to that of competitors, domestic and foreign.... It is their misfortune that [American workers] have not been given by this country that measure of technical instruction that is their due. (National Association of Manufacturers, 1905; cited by Cuban, 1983, p. 187)

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[32]. Historical data suggest that rural areas were already well-integrated into the national economy (Dunaway, 1989; Meyer et al., 1979). Revitalization in 1920 probably had more to do with a romantic view of rural freeholders, who were abandoning the land. Cubberley (1922) was understandably dismayed by a large increase in tenant farming. He correctly understood tenant farming to be bad for the land as well as for a democratic social order.

Now, as then, rural schools are viewed as targets for "restructuring" (Silver & DeYoung, 1986; e.g., Committee of Twelve, 1898; Mid-Continent Regional Educational Laboratory, 1988); now, as then, rural schools are encouraged to provide more practical training to rural youth (DeYoung, 1989; Grubb, 1985; e.g., Hobbs, 1989; Sher, 1987, 1988b; Ross & Rosenfeld, 1987). Unlike their predecessors, contemporary reformers call for training entrepreneurs instead of employees, and they recommend training relevant to services instead of farming and manufacturing. The practical intent of contemporary reformers, however, is nonetheless identical to that of earlier reformers (DeYoung, 1989; Grubb, 1985): improved economic performance through improved education, especially better occupational or technical training (e.g., Hobbs, 1989).

Vocationalism and economic marginality. In educational practice, human capital theory is implemented as vocationalism (Stronach, 1988). Grubb (1985) defines vocationalism broadly, as occupationally related educational differentiation that occurs at every level of schooling. He notes:

> In fact, the basic purpose of schooling for individual students has come to be defined in vocational terms. In most countries, the ethic of staying in school to improve one's occupational standing--rather than for moral or political development, for example--has become dominant during the twentieth century. (Grubb, 1985, p. 538)

Grubb describes a number of specific problems associated with using education (in secondary, postsecondary, and higher education) to achieve economic goals.

The first is educational inflation. As enrollment expands, returns to the lowest levels of educational attainment (for example, completing high school) lose their value. The recent analysis by Murphy & Welch (1989) confirms this fact: Part of the dramatic increase in returns to a college degree in the 1980s is accounted for by a 10%-16% decline in real wages for high school graduates.

Second, rates of return to education tend to fall for students who pursue advanced degrees. Many studies (for example, Gordon, 1979; Murphy & Welch,

1989; Psacharopoulos, 1981) confirm this fact, which neoclassical economics explains as the phenomenon of diminishing marginal returns. Grubb notes an alternative explanation, however: education serves to allocate jobs. This explanation implies that higher levels of educational attainment may not increase productivity, even though they offer a modest return on the investment in human capital (Collins, 1979).

Third, vocationalism does not, contrary to popular belief, serve to increase economic equality (e.g., Levin, 1984). It fails to do so because it parallels workplace differentiation, which, through associated wage and salary differentials, necessarily creates greater income variability (Shackett & Slottje, 1986). Jobs become more specialized; in the process, both higher-wage and lower-wage jobs are created; as training efforts, both in and out of school, reinforce the workplace differentiation, income variability (and hence, income inequality) increases. Shackett & Slottje (1986) discovered that the increase in educational attainment in their longitudinal study was significantly related to growing income inequality.[33]

Stronach (1988, p. 67) is puzzled by the "unreason" that characterizes vocationalism as a continuing proposal to address economic woes (cf. Grubb, 1985; Zachariah, 1985). He posits a ritual role for the propaganda that accompanies vocationalism.[34] According to Stronach (1988, p. 68), "ritual

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[33]. Such findings reverse initial hypotheses that more education would decrease inequality (cf. Mincer, 1980).

[34]. Vocationalism, in this analysis, is the instrumental aim of education as a strategy for economic development (at the macroeconomic level) and job-training or career-building (at the individual level). Since it is known that vocationalism does not provide the economic benefits imagined for it, its continuing popularity must serve some purpose. Stronach identifies this purpose as ritualistic rather than ideological, since it lacks coherence.

addresses crisis, its means are rhetorics ... and its end is reassurance." He concludes:

> This kind of unreason is not based on rational error, or simply ideological duplicity. It centers on a need to reassure the powerful as much as it seeks to mystify the powerless--and indeed the evidence seems to be that it succeeds better at the former.

Stronach's assessment brings the discussion full circle to the beginning of this chapter and the reactions to Coleman's findings. Human capital theory and the school-effectiveness movement form a tight ideology of schooling, with the technology of school improvement the means and the development of human capital the ends. The cultural values upon which the ideology is based entail acquisitiveness, efficiency, instrumentality, and novelty.

Ideological roots of rural educational marginality. Marginal enterprises do not exist at the center of technical development; instead, they provide essential goods or services on the basis of routine production (Bloomquist, 1987). Unless protected by special arrangements, marginal economic enterprises produce low rates of profit (cf. Duncan & Duncan, 1983).

In the context of economic marginality, standardized (and nationally instrumental) schools create the norms and expectations that establish rural educational as a marginal enterprise. All the features of capitalist ideology described previously apply here as well. The following analysis will, however, concentrate on efficiency, novelty, and instrumentality as these characteristics most directly reflect the marginality of rural education.

The norm of efficiency--in the context of the other norms of standardized schooling--has the greatest effect in structuring rural schools as marginal enterprises. Because rural schools have expenses that are necessarily higher than urban schools (Bagby et al., 1985; Deaton & McNamara, 1984; Honeyman et

al., 1989), normative comparisons force rural schools to economize more than other schools (Augenblick & Nachtigal, 1985; Howley, 1989a; Meehan, 1987).

Second, standardized operations (for example, administration of state- and federally-funded categorical aid programs) require greater expenditures in rural than in urban schools, possibly because the required oversight effort imposes a diseconomy of scale on districts with low student enrollment (Meyer et al., 1986). Meyer and colleagues, using a national data set, discovered that dependence on categorical federal funding (e.g., Chapter I, P.L. 94-142) generates more administrative positions and additional expenditures than other kinds of funding. Rural districts rely more on state and federal revenue than other districts (Honeyman et al., 1989), and, with smaller enrollments, their administrative costs per student are necessarily higher (cf. Meyer et al., 1986).

Third, novelty--or, in educational terms, the ideals of innovation, improvement, and progress--impose additional expectations on rural schools. Rural schools that are already strapped to meet ordinary operating expenses have difficulty acquiring the goods and services necessary to support the perpetual innovation and improvement that are normatively expected of all districts. Acquiring computers, for example, has become a pressing concern of rural districts (Honeyman et al., 1989). Recently adopted reforms impose additional burdens, and the available appropriations are not usually sufficient for rural districts to meet the mandated reforms (Brizius et al., 1988; Lyson, 1989; Stephens, 1988).

Indeed, most rural districts encountered problems meeting the standards in place prior to the reforms of the 1980s (Dunne, 1983). In his analysis of the plight of schools in the rural South, Lyson (1989) attributes the cause to previous rural development efforts, particularly the competitiveness among rural

communities to attract industry. These communities offered tax breaks, low-interest loans, and funded construction projects to attract manufacturing plants. In so doing they denied themselves the benefits of an increased tax-base and assumed new debts. When these subsidized industries left the area, as many did in the 1980s, some of the communities were in worse financial shape--due to debts incurred--than they were before. Coupled with the decline in federal funding for rural areas, the result is disaster for these communities and their schools.

The ultimate utility of an economic enterprise is profit. The ultimate utility of the educational enterprise, at least since the late 1940s, has come more and more to be economic development, both for individuals and for society as a whole. In metropolitan areas the economic development that tends to occur naturally (Jacobs, 1984) serves to justify economic development as the overriding aim of education. In rural areas, however, despite rising educational levels, substantial development has not taken place (DeYoung, 1989; Grubb, 1985; Lyson, 1989; Prattis, 1979; Pottinger, 1987; Stronach, 1988; Zachariah, 1985).

Finally, the rhetoric that dominates discussions about the aims of schooling is a minimal expectation of the possible benefits of education. The desperate concentration on economic development as the aim of education handicaps thinking about the educational mission. The recent concern for students' "higher-order thinking" illustrates the problem well, and that concern is disturbing because higher-order thinking is conceived to be the most important deficiency in the competitiveness of the American workforce (Committee for Economic Development, 1985). Surely the nurture of students' thinking is among the most worthy of educational aims; yet, in the context of vocationalism, thinking, too, becomes a thing--a set of skills, a kit of practical tools for

economic development--rather than the habits of intellect that characterize skepticism, inquiry, and critique. Because the relationship between specific educational practices and economic development is so tenuous with respect to individuals (DeYoung, 1989; Grubb, 1985; Williams, 1988), educational planning based on the premises of economic development may be, as Stronach (1988) alleges, a kind of witchcraft that serves a purpose other than education.

Vocationalism and Entrepreneurship in Rural Education

Nations in the modern world have universally cherished the hope that education would provide the engine of economic development and the means of achieving more equal societies. Twenty years of phenomenal growth in education, both in developing and developed nations, has provided virtually no empirical data that justifies the hope (Carnoy, 1982; DeYoung, 1989; Grubb, 1985; Levin, 1984; Williams, 1988; Zachariah, 1985). If human capital theory cannot explain the economic plight of rural areas, if vocationalism has not provided the economic development it has promised to rural areas, and if the technology of school improvement is problematic for rural schools, then what concepts might be educationally relevant to the dilemma of learning in rural areas?

There are two alternative views. The first view accepts the instrumental strategy of improving rural economies through rural education as valid. It criticizes the kind of vocational training provided in the past to rural students, and proposes a different kind of training (cf. Sher, 1987). The second view, however, rejects vocationalism as a valid strategy. It bases its rejection on evidence that suggests schools are weak tools for reshaping the economic context in which they exist (cf. Jencks et al., 1972; 1979).

The New Vocationalism: Entrepreneurship

Neoclassical economics exercises an increasingly more powerful influence on rural education, despite the lack of evidence that local investments in human capital contribute much to rural economic development (Carnoy, 1982; Deaton & McNamara, 1984; Grubb, 1985; Hobbs, 1987; McNamara, 1987; Knutson & Fisher, 1988; Stronach, 1988; Zachariah, 1985). Because neoclassical economists regard the value of human capital in macroeconomic development as firmly established (e.g., Deaton & McNamara, 1984), the challenge has become how to devise

strategies of investment in human capital that do contribute to rural economic development.

Retooling vocationalism. According to many observers (e.g., Friedman, 1987; Hobbs, 1989; Knutson & Fisher, 1988; Ross & Rosenfeld, 1987; Sher, 1989) the evidence indicates that the vocational strategies of the past were in error because they did not take into account predictions about the emerging post-industrial order (cf. Bell, 1973; Toffler, 1970).

In this view, the means of education, not its aims, were at fault. This lack of foresight had a two-fold result. First, it resulted in the training of employees in a set of limited skills: conformity, punctuality, the willingness to accept the direction of others, and rudimentary academics (Sher, 1989). Second, it tied the content of training to an economic sector that would in the future produce fewer jobs, while other sectors would (unexpectedly) produce more jobs (Hobbs, 1989).

These results are two sides of the same problem. Managers in the goods-producing industries have not required most employees to think; rather they have required them to follow procedures established by others (Hobbs, 1987; 1989). In the context of the conventional organization of an American goods-producing industry, this low academic expectation is a requirement of industrial efficiency. Lately, however, American business has come to understand that this approach to training workers is short-sighted (Committee for Economic Development, 1985).

The historical changes discussed previously also provide evidence of a need for a changed educational method, given the dominant vocational aims of education. During the 1970s and 1980s, while the metropolitan economy presumably retooled to accommodate the emerging service sector, rural economies continued to specialize in extraction and manufacturing. Technological

innovations in extractive industries put some residents out of work. Footloose manufacturing firms departed for the third world, putting other residents out of work. During the economic recovery of the 1980s, rural areas did not recover to the same extent as urban areas (McGranahan, 1987).

The way in which rural education should be changed seems clear on the basis of this critique: the aim of education as occupational training remains, but the content and methods need to be aligned with the requirements of post-industrial occupational prospects. Hence, schools should change the kind of occupational training given to rural students.

Three principles guide these changes. First, the post-industrial era is thought to require more highly-trained workers; second, the service industry is predicted to provide most new jobs; third, rural areas have special service "niches" that no one but local residents are likely to fill (Hobbs, 1987). Although many rural residents now earn their living in specialized enterprises, they spend that income outside their communities, in larger towns or in urban areas, since local services are not available. Schools can contribute to local economic growth by producing local entrepreneurs to fill those local service niches (Hobbs, 1987; Sher, 1988b).

In this view of vocationalism, entrepreneurs are thought to represent a type of emerging post-industrial citizen, and all students are potential entrepreneurs (Friedman, 1987). Existing entrepreneurs, of course, embody the cultural values of capitalism we cited above. They are task-oriented (they are instrumental); they work hard to achieve success (they are acquisitive); they are innovators (they are concerned with novelty); and they know how to maximize their resources (they are efficient) (Friedman, 1987; Hoy, 1987; Pulver, 1987).

Programs that use rural schools as centers of entrepreneurship and business incubation[35] have been started in scattered places around the nation. Jonathan Sher, who heads North Carolina's Rural School-Based Enterprise Program, is perhaps the conceptual leader in school programs that aim to develop rural entrepreneurs. Sher (1988) presents such training as a variety of cultural resistance and school reform. His knowledge of the rural context is substantial: He is skeptical of the contribution of schooling to economic development;[36] he understands how schools train impoverished students for compliance; and he understands the economic constraints under which rural schools operate. According to Sher (1987), rural enterprise programs will, however, accomplish several purposes. They will help keep students in school by making the schools more relevant, they will improve students' self-esteem, and they will revitalize local communities.

The value and limits of entrepreneurship. The justification for both the old and new vocationalism depends on the success of their application rather than on the significance (meaningfulness) of their teachings. Vocationalism has always aimed to develop new attitudes to work, provide relevant skills, and keep rural students in local communities (Grubb, 1985). On these points, rural enterprise training is no different from the vocationalism put forward in

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[35]. In schools, business incubation is a program in which teachers guide students in identifying a business niche, developing a business plan, locating financial backing, planning for operation startup, and managing the fledgling business. Business incubation, which is a tactic of small business development agencies, need not, of course, occur in schools.

[36]. "The rhetoric about strengthening the economy by strengthening education is flowing hot and heavy across our nation.... To the extent that corporate leaders can blame the education sector for our nation's economic woes, they can divert attention away from their own short-sightedness, greed, and poor management" (Sher, 1989, p. 40).

earlier eras. It differs only in the kind of attitudes and skills it proposes to develop in students.

The proponents of entrepreneurship training, however, can differ substantially among themselves about which attitudes and skills to teach students. Some proponents appear to have in view the cultivation of a kind of Jeffersonian society of independent business people who will apply post-industrial technology to the stewardship of society in much the way Jefferson had originally hoped independent small-scale farmers would apply pre-industrial technology to stewardship of the earth.[37] The traditional appeal of this vision is strong among Americans. To the extent that it guides programs of entrepreneurship, it could help students consider the larger issues of meaning that <u>should</u> be the chief concern of education (Arendt, 1978; Bell, 1973; Keizer, 1988; Wigginton, 1985).

While it is true that learning how to design and manage a successful business is more meaningful than learning punctuality and compliance, it is also true that the realities of the economic structure impose a limit on how many rural students can become successful entrepreneurs (Lyson, 1989). Some observers believe that the hope of self-employment is a distracting delusion that serves to legitimate wide inequalities among the sexes, races, classes, and geographic regions (e.g., Wright, 1979). To the extent that this analysis is correct, entrepreneurship training is misguided.

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[37]. See Sher's (1988) <u>North Carolina Today: A State of Emergency, a State of Grace, a State of Anticipation</u> for such a vision of society.

Theoretical Interlude: Learning Versus the Development of Human Capital

Some principles to focus the concluding discussion are in order. First, learning (as noted in the introduction) is a process that is fundamentally different from investment. Second (a principle arising from the first), however important material conditions may be in shaping the experiences of the workplace, the role of culture and ideology in the classroom is paramount. Third (a principle arising from the first two), the value of education is not limited to, or even best conceived as, its relationship to earnings. Fourth, the institutional role of schooling is contested ground, so that an alternative view of rural education need not resolve whether or not the ultimate institutional role of schooling is to legitimate the existing inequity of the social order or to contribute to the construction of a new one. It will inevitably do both. Finally, to focus the concluding discussion, the terms "culture" and "ideology" need definition.

Culture. A narrow definition restricts culture to "the ... symbolic forms ... which seek to explore and express the meanings of human existence in some imaginative form" (Bell, 1976, p. 12). The advantage of this definition is that it relates the notions of equality, justice, and--more generally--culture and ideology to the economic changes that are overtaking society.

Culture in this sense is not the broad sweep of anthropology, but the imaginative realm of the mind, with the specific habits of intellect and aesthetic perception used by artists and scholars to address the enduring questions of life (Bell, 1976). The role of the schools, in this view, is to strive to make that realm accessible to all students. Learning is a cultural act, and if such an act is to take place, teachers must develop a shared

discourse with which they can encounter questions of enduring significance with their students (cf. Giroux, 1983).

Ideology. *Ideologies are codes of values that function to organize and* legitimate a polity (Bell, 1976). As mere political tools, however, ideologies become dogmatic and contradictory, and they can advance whatever interests those who control the political agenda wish to pursue.

> Another sense of the term applies to learning, however, because it is in the character of ideologies not only to reflect or justify an underlying reality but, once launched, to take on a life of their own. A truly powerful ideology opens up a new vision of life to the imagination; once formulated, it remains part of the moral repertoire to be drawn upon by intellectuals, theologians, or moralists as part of the range of possibilities open to mankind. (Bell, 1976, pp. 60-61)

It is in the nature of the human mind, as it applies reason and judgment, to construct coherent ideologies from knowledge, values, and experience (Arendt, 1978). Though it uses knowledge, such construction is not knowledge; rather it is "understanding," the making of meaning (cf. Arendt, 1978).

The debasement of knowledge as information. A serious cultural problem of the emerging post-industrial world is that it blurs the distinction between information, knowledge, and understanding (Bell, 1973; Wiener, 1950). Facts are thought to "speak for themselves," and the possession of facts (information) is equated with knowledge. When learning becomes the acquisition of information (as in a curriculum and instructional routine that teaches only basic skills for a vocational purpose), education is debased.

The debasement draws education into a wider cycle of cultural devolution: Science devolves to technology; culture devolves to consumption; and education devolves to mere experience (cf. Bell, 1973). As a cultural phenomenon, this

process resembles the physical phenomenon of entropy, the tendency of organized systems to become disorganized (cf. Bell, 1976; McLuhan, 1964; Toffler, 1974; Wiener, 1950).

In the reductionist modality of knowledge-as-information, even the distinction between knowledge and information has vanished. Learning becomes a kind of unmediated transfer of information, unmediated not only in its directness, but in the absence of an instructional authority. The construction of meaning disappears as an aim of education, since it is neither information nor skill.[38]

Cultural and ideological critique of entrepreneurship training. In addition to its material limits as retooled vocationalism, rural enterprise training has cultural and ideological limits. Whereas good rural academic instruction makes a commitment to a progressive ideology, and to the preservation of culture and the construction of meaning (Keizer, 1988; Wigginton, 1985), the new vocationalism continues the old vocationalism's commitment to the ideology of capitalism.

Bell (1976) points out that the cultural weakness of capitalism lies in the way it separates culture and technical skill. Culture is debased and becomes a realm in which the meaning of literature, history, or art is a matter of subjective taste and private pleasure. Complex considerations of taste, judgment, and meaning are not simply viewed as too difficult for ordinary

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[38]. Compare the ideas of thinking as skills and thinking as the construction of meaning. The construction of meaning entails, among other activities, an analysis of values and the synthesis of experience and knowledge. Thinking skills, for the most part, are the value-free procedures of mathematics and the natural sciences. The representation of thought as a skill debases not only the educational mission but the richness of the human intellect as well (Bell, 1973, 1976), where philosophic, aesthetic, and social values adhere even to so "pure" a discipline as mathematics (Weiner, 1950).

students, they are seen to be inappropriate topics of classroom discourse, a potential violation of an individual's privacy. This trend trivializes the humanities, which are the source of the values that not only sustain society but that permit social progress (Bell, 1976; cf. Wigginton, 1985). The humanities are problematic in the context of vocationalism because--unlike enterprise training--they do not imply some immediate course of action (cf. Hobbs, 1989, p. 11). Technical skill, which does imply an immediate practical effect, becomes the focus of training and economic advancement, however weak or questionable the empirical connection between it and economic development below the macroeconomic level (e.g., for blacks, women, or rural residents).

Finally, most entrepreneurship training resembles the vocationalism of earlier eras in its conception of the aims of education: it assumes that knowledge, learning, and understanding have value only in so far as they serve hypothetical practical ends in the world. In the most debased form, education becomes mere training intended to serve particular, predetermined ends. Entrepreneurship training is as prone to this error as any sort of vocational training.

Culture and Ideology in the Rural Classroom

The sorts of pedagogical issues considered next are invisible to the neoclassical economists who elaborate human capital theory, which treats a given level of educational attainment as a utility of equal significance to all.[39] As the following discussion illustrates, however, the conditions of instruction in schools do contribute to students' subsequent fate in the employment market.

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[39]. Levin (1984), Williams (1988), and Wright (1979) demonstrate, however, that the returns to similar levels of education vary greatly according to gender,race, and class. Wright's empirical work is significant because it investigates the effects of class using a dichotomously organized class structure.

But in the classroom, culture and ideology inevitably come to the fore, and economic structures seem more distant (cf. Aronowitz & Giroux, 1985; Giroux, 1983).

Curriculum and instruction: The higher- and lower-orders. The issues of equality and justice are major problems in any society, whether capitalist, socialist, or communist (Bell, 1973; Carnoy, 1982). They can be dealt with only briefly here, in the context of a discussion of curriculum and instruction pertinent to the second kind of education, proposed next, for rural schools.[40]

The schools are segregated by class and race according to residential patterns (Jencks et al., 1979). The children of workers (the lower orders) get essentialism--basic skills stripped of context and meaning--and the children of elites (the higher orders) get perennialism (Anyon, 1987; Bowles & Gintis, 1976; Giroux, 1983; Jackson, 1981; Wilcox, 1982; Wilcox & Moriarity, 1977). Most educators therefore denounce perennialism (treatment of the "high culture") as an instrument of oppression or as an increasingly irrelevant body of knowledge (e.g., Carnoy, 1982; Giroux, 1983; McLuhan, 1964; Toffler, 1970).

Liberal and radical objections to the perennialist curriculum are founded on the misperception that the perennialist curriculum, and not the basic skills curriculum, is elitist. In fact, both perennialism (the higher-order curriculum) and essentialism (the lower-order curriculum) together reproduce the social divisions of American society as an artifact of the way contemporary

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[40]. Carnoy (1982) summarizes the equalization potential of education in an excellent article. Levin (1984) illustrates that even the effect of equalizing educational attainment at a high level would effect earnings inequality only slightly. Bell (1973, 1976) presents several extended and insightful discussions of the issues of equality and justice as they pertain to both education and economics in post-industrial America. Grubb's (1985) excellent review demonstrates how vocationalism contributes both to educational and economic inequality.

American schools are organized (Bowles & Gintis, 1976; Grubb, 1985; Oakes, 1985).

Instructional methods commonly associated with both perennialism and essentialism (impersonal, decontextualized instruction), however, are deservedly condemned by many observers. Oxendine (1989) and Wigginton (1985) demonstrate how teaching to promote the life of the mind might be organized at the elementary and secondary levels.

The distinction between curriculum and instruction is essential, however. Good instruction cannot take place without good curriculum. Bell (1973) contends that certain bodies of knowledge are of enduring importance, and experiential instructional methods (e.g., Oxendine, 1989; Wigginton, 1985), while powerful motivators of learning, have, as instructional methods, a limited scope.[41] For example, although Wigginton's teaching is guided by a coherent ideology that underwrites an imaginative view of life (Wigginton, 1985), the experiential method of itself does not define the curriculum, nor can it be the principal instructional strategy with which to consider all of history, great literature, higher mathematics, foreign languages, or science. At the same time, experiential methods could be much more widely used to improve instruction in more traditional academic subjects such as these.[42]

Good higher-order instruction of this sort is probably more difficult to achieve widely than effective instruction in basic (or thinking) skills, for which specific formulas exist (e.g., Joyce et al., 1983). Adler (1983),

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[41]. According to Puckett (1989), Wigginton and his colleagues recognize this problem and are taking steps in address it.

[42]. The innovative math and science curricula of the 1950s and 1960s did incorporate the notion of "inquiry." Bruner's inquiry-based social studies unit (Bruner, 1966) earned a great deal of notoriety when it was criticized as un-American on the floor of the U.S. Congress.

however, describes the general features of such instruction, and rural teachers like Keizer (1988) and Wigginton (1985) typically (perhaps intuitively) practice the instructional routines commended by Adler.

Meaning Versus Instrumentalism: The Dilemma of Rural Education

First vocational training, and now enterprise training, have been extolled as a means of keeping the rural way of life from disappearing altogether. The history of the American empire and the present economic status of rural America, however, suggest that the material tradition is exploitation, of rural resources and rural people. Whether this tradition can be ended is moot. Wigginton (1980) claimed it was too late for his county.

Rural life and learning, however, may have another role than the instrumental one actually accorded them in the economic structure. The features of rural life--solitude, the imminence of the natural world, and kinship with neighbors, for the most part--may have an enduring intellectual significance for the American culture as a whole, which is rooted in a rural experience. The isolation and imminence of the natural world in rural areas provide a context for the life of the mind, which has little scope beyond professionalism in the urban context. Intellectuals have historically looked to rural life as the inspiration for the development of a strong pastoral theme in American thought (Jacobs, 1984; Sample, 1989; Theobald, 1989). More generally, the search for virtue is in America bound up with stewardship of the earth (e.g., Berry, 1978, 1984, 1986; Nearing & Nearing, 1970). The rural tradition embodies an ethical ideal (an ideology) that encompasses individual, community, and nature. Schooling in rural America might embody such an ethic--which relates to concern for the social and natural environment as well as for the intellect--better than it has.

This alternative entails the preservation of meaning and reflection in a developed culture that is notable for its anti-intellectualism (Hofstadter, 1963; Howley, 1987; cf. Storr, 1988). Rural schools, which have been

instruments of empire-building, have done little to look at their mission in this way, and it might be argued that rural schools as they are cannot begin to carry out such a mission. The material conditions of rural and economic marginality seem almost insurmountable.

Is it, however, coincidental that a rural teacher has written one of the most eloquent statements of why the creation of meanings, not vocationalism or the development of human capital, warrants the work of the schools? I think not. Keizer (1988, p. 68) writes,

> For consider, if the real world is as full of injustice, waste, and woe as it appears to be, and school has no other purpose than to prepare young people to man and woman the machinery of the real world, then schools are pernicious institutions. They serve to perpetuate rather than remedy evils. We would do as well to burn as to maintain a school that does no more than mirror and foreshadow the real world.

This view pits rural education as cultural act (the preservation and extension of culture) against education as an economic end (global domination and integration). The life of the mind works on the appreciation and making of fine distinctions and on the examination of contradictions (cf. Bell's "discordant knowledge"). If Bell's (1973, 1976) analyses of post-industrial society and the cultural contradictions of capitalism are correct, an education that fails to equip most students with an intimate knowledge of their culture and with the tools of judgment and reason--so they can confront the significant questions of human existence--will surely fail them and their various communities badly. Rural schools can and should contribute to the most essential mission of education: the nurture of minds that construct meaning.

There is little doubt that students thus prepared will contribute substantially to the well-being of their communities. The chief impediment to this alternative, however, is our continuing devotion to the idea of efficiency, which, ironically, grounds the aims of education in a practicality that remains

merely hypothetical (Carnoy, 1982; Grubb, 1985). As Stronach (1988) points out, it has not even mattered that the promises of vocationalism are hollow. It is past time to reconsider the aims of rural education: Educators should learn that schools cannot directly change the social and economic structures in which they are embedded. Their mission, instead, should be to help students encounter the enduring human questions and to construct the valid meanings that are the only route to the creation of a more just society and a more productive world.

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